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S C I O STACKS

AUG. 1968



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CONTENTS

Front Cover: Ospreys
Photo by Dewire

CHILDREN'S SECTION

Nature Calendar	1
Children's Corner	
Rock Hounds	
Pet Corner	
Activity Page	

ADULT SECTION

Articles of Adult Interest	11
Field Notes	15

ACTIVITIES FOR AUGUST

. . . . Inside back cover.

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JOHN F. GARDNER--Executive Director ROBERT C. DEWIRE--Naturalist

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The Thames Science Center is a nonprofit organization seeking a quality environment through education.

The active support of children and adults in the Science Center, its programs, activities and efforts is earnestly solicited.

> JOHN F. GARDNER Editor

The Interpretive Museum of 622 Williams Street, New London, Connecticut 06320 The Peace Sanctuary Nature Preserve At 200 River Road, Mystic, Connecticut 06355



AUGUST'S NATURE CALENDAR

AUGUST is the month of fields in flower. Any field that has not been mowed will be filled with wildflowers which will turn the field all different shades of yellows, blues, reds and purples. It is during this late summer period that these flowers are at their best.

If you should walk through a field during August, some of the common flowers you will find will include the Joe-pye-weed, which is a tall plant with a cluster of small purple flowers at the top. Looking very much like the Joe-pye-weed but with white instead of purple flowers is the White Boneset. Asters of many species are in flower and include colors ranging from white to yellow to purple. The Sunflower and Black-eyed Susan are members of this group. Goldenrods turn whole fields yellow and hundreds of insects come to their flowers. If the field is alongside a wet area, the brilliant red Cardinal Flower may be found.

Although some people consider a lot of these plants as just weeds, a walk through a field will show you how pretty some of these "weeds" are.





AUGUST'S NATURE CALENDAR

August is the month of early migrating birds and fields of goldenrod.

<u>August 2...</u>Sweet Pepperbush is in flower - one of our sweetest smelling wildflowers.

<u>August 5...</u> Meadow Beauty flowers in open sandy areas.

August 8... Full moon called the Sturgeon moon.

<u>August 9-14</u>...Shooting stars visible on clear nights.

August 10... Katydids add their song to the nighttime chorus of insects.

<u>August 14...</u> Mushrooms of all colors and shapes are throughout the woods.

August 17... The Green Darner, one of our largest and fastest flying insects, can be found flying over fields catching insects.

<u>August 19</u>...Ragweed in flower - suffering ahead for hay fever-getters.

August 21... Flocks of blackbirds pass over our skies as they fly South for the winter.

August 23... Cardinal Flower in bloom in open fresh water marshy areas.

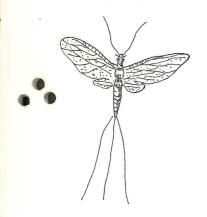
August 26... Large moths such as Cecropia and Luna are attracted to lights at night.

August 27... Look for warblers that nest in the far north passing through here on their southward migration.

August 29... Deep purple Ironweed is in flower in open areas.

August 31... The shore-bird migration reaches its peak with thousands of sanapipers and plovers moving down the coast.

May Fly

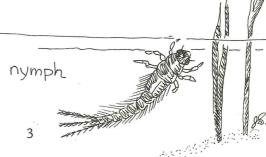


Students in the Science Center's Summer Program have discovered that there is a beautiful insect with shimmering wings and three long, thread-like tails; known as the May fly, that lives in streams and ponds.

This insect starts its life living at the bottom of these streams and ponds, and is not very beautiful, in fact it is considered very ugly.

In early summer a great number of these grub-like creatures begin crawling out of the muddy home that they have lived in for about three years. After going through several stages of growing the nymph is now ready to shed its gills and uglyness to become a fairy-like insect.

When the larvae reaches the top of the water, the skin splits down the back and like a miracle the ugly creature turns into a beautiful insect with lungs now instead of gills, and wings that will carry it off into the wind.

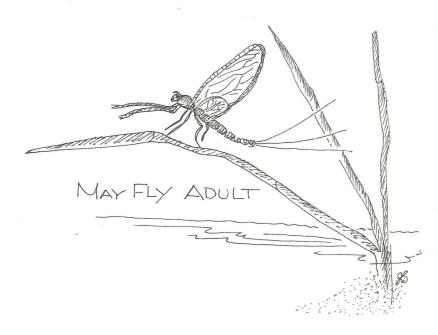


May flies, having lived so long under water, only live one day in the air.

You may think it's strange that a creature having so little a life as a May fly should take so long to grow from a water insect. But nature has its ways and the May fly larvae serves its purpose by being a food supply for fish such as shad. If it were not for May flies many fisherman would come home empty handed.

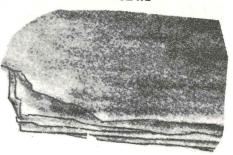
On its one day of living in the air the May fly lays its eggs, planting them in the water where new larvae will grow.

You may also find it interesting, as did the Summer Program Students, to know that the May fly, after coming out of the water does not eat a single mouthful of food. It could not eat even if it wanted to as it has no mouth......



ROCK HOUNDS

by JERRY THEILER



ROCKS

This article has been dealing with minerals in the past. Rocks are very closely related to minerals and the rocks will be discussed in the next few articles. Remember now, rocks are simply groups of minerals or a large amount of one mineral.

Man has divided rocks up into three main groups: Igneous, Sedimentary and Metamorphic. Each group will be discussed in the following articles. It is much easier to identify a rock than a mineral. So if you follow these next three articles carefully, you should be able to identify any rock you find!

Let's take a brief look at each rock group.

- 1.) Igneous--These are fire-formed rocks and almost always have crystals.
- 2.) Sedimentary--Layered rocks formed under water having flat bands.
- 3.) Metamorphic--Rocks changed by heat or pressure. They have layers, but the layers are usually bent or warped.

PET CORNER

Neon Tetras

The fish to be discussed this month is no doubt familiar to anyone who has ever visited a tropical fish shop. Known for its beauty and liveliness, the Neon Tetra certainly has a place in any community tank.

The Neon Tetra came from Peru and Brazil originally. They eat almost all types of fish food--especially brine shrimp and infusoria when they are young. The Neon swims mainly in the lower half of the tank and gets along very well with other types of fish.

The female Neons are generally larger than the males and are distinguished by a red portion towards their backs. The males also have this red area, but it begins further up toward the gills. They both have an unmistakable blue stripe along the side.

Neon Tetras are more difficult to breed than most other tropical fish. If however, the tank is kept clean and bare and the adults are healthy, you should have no great problem. The water temperature should be about 78° F. and the water hardness no more than 10.

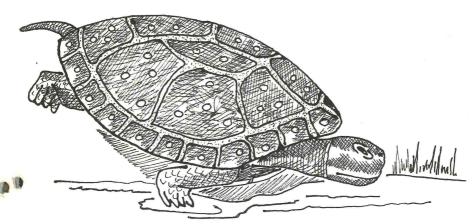
I'm sure that you would enjoy keeping a few Neon Tetras in your community tank. They are very perky and flit rapidly through the water. They are certainly entertaining to watch.

JUNIOR NATURALIST NOTEBOOK

TURTLES

AS

PETS



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KEEPING TURTLES:

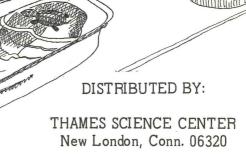
It is a great deal of fun to raise turtles...but it is also work. Turtles are animals and therefore require care if they are to remain healthy.

Feeding your turtles is very important. Prepared turtle food made from dried insects is not enough for your turtle. A turtle needs food that is like the food he finds in nature. Give your turtle bits of raw fish, meat, small earthworms, lettuce, fresh killed flies, such fruits as bananas, apples, melons, and shellfish. A drop or two of cod-liver oil added to chopped meat and fed now and then will help the turtle get his proper vitamins. One thing to remember is that turtles, like other animals, need a varied diet.

After you feed your turtle be sure to clean out any left over food so the water in your turtle bowl will not get polluted. Some turtles must eat in water so be sure the water is deep enough to allow this. Turtles do not eat as much as warm blooded animates so two or three feedings per week is usually enough.

Handle your turtle only when necessary, as too much handling can kill a captive animal. Warmth must be provided and this can be done with an electric light. Forty to sixty watts is about right, but you must be careful not to overheat the turtle by placing the bulb too close to the bowl. Turtles can also be chilled. When you change your turtle's water, don't use very cold water. Let it sit and warm up so that it will not be a shock to the turtle going from warm to cold water. Water temperature should be between 75 and 80 degrees for the best health of your turtle.

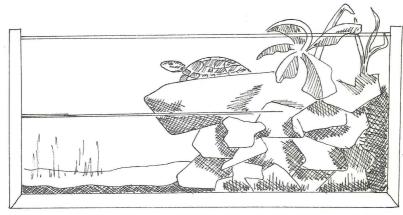
Turtles are both land and water animals, so make your aquarium nice by giving your turtle some rocks and maybe a board to sun on and a small island to rest upon.



Remember to keep the aquarium in a light place, but don't keep the aquarium in full sun or full light. Your turtle will enjoy sunning himself on his board or island and he will enjoy a little cool shade on a hot day just as you do.

In the winter your turtle may stop eating and sleep a great deal. Remember that turtles are hibernating animals. Your turtle may just want to go to sleep. So move him into a darker and cooler part of the house for a few months. Then in the spring move him back to a favorite spot. In the spring he will be very hungry, so have some raw fish and earthworms for him to feast upon.

Again, remember your turtle is a living animal, so treat him with care and take good care of him, he will make a fine pet......



Turtle Aquarium

ARTICLES OF ADULT INTEREST

We welcome notice of Conservation activities or problems for inclusion in this section of the Naturalist's Notebook.... Please let us know of your local activity so that others may be aware of your efforts and lend their support where possible....

OSPREYS IN CONNECTICUT

The following pages of pictures show a small portion of the osprey study that was conducted this year. Mr. Paul Spitzer of Old Lyme headed up the study, working under the U.S. Fish and Wildlife Service.

The pictures show the banding of the young birds which are approximately four weeks old. The lock-on aluminum bands will not slip off the bird's feet at this age. These bands were all painted bright yellow with a special paint. It is hoped that this paint will withstand weathering, so that the bands can be easily recognized from a distance in future years as ping on birds that were raised at the Connecticut colony.

The banding work was done both at Great Island and at Black Point. The work will enable the researchers to find out where these young birds go when they leave their nests, where they will spend the winter and whether they will return to this area again next year or go to another location.



Paul Spitzer prepares to take a young osprey from the nest to be banded. Although the bird looks like it's ready to fight, they are remarkably calm and put up little struggle.

The large aluminum band is slipped over the young bird's leg and squeezed shut with pliers. The band is of greater diameter than the bird's leg and fits loosely so there is no injury.





The band is now in place on the bird. The ridge of metal on the band is a lock-on apparatus to prevent the bird from ripping the band off its leg when it grows up.

The young osprey is returned to the nest none the worse for his ordeal and sporting a bright yellow bracelet.





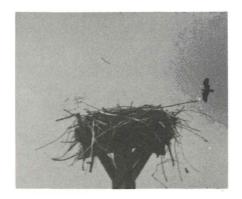
Photos by R. Dewire

Some of the young birds were brought up as babies from the Maryland colony and placed in Lyme nests where the parents quickly adopted them. Whether the band is on the right or left leg tells if the bird was brought here from Maryland as an egg or a newly hatched youngster. One interesting question to be answered is whether the birds hatched in Maryland and brought to Lyme will return to their original home or their adopted one next spring.

Besides the Great Island nests, the nesting success of ospreys on the Connecticut coast this year is as follows:

LOCATION	# NESTS	RESULTS
Black Point Millstone Point	3	1 young in each 2 unhatched eggs
Trumbull Airport	1	eggs broken
Mumford Cove Mason's Island	1 1	2 young eggs broken
Wilcox Curve, Ston.	1	1 young
Barn Island	1	1 young

This study will be conducted again next year and chemical studies of the unhatched eggs is still being done to determine the cause of their inability to hatch.



The parent birds flew around in wide circles but never came too close during the banding. The female would return to the nest immediately after we left the area.

FIELD NOTES

June 15 - July 15

This year's breeding bird census in the Arboretum showed a substantial return of nesting pairs compared to last year. Only the RED-EYED VIREO stayed at its surprisingly low numbers.

East Haddam: On July 6th, an ACADIAN FLY-CATCHER'S nest was discovered at Devil's Hopyard --a rare nesting species for Conn. Also at the Hopyard were BLACKBURNIAN, CANADA and WORM-EATING WARBLERS.

Waterford and New London: At Mary Butler Drive INDIAN PIPES were up on June 27th and WHITE AZALEA flowered on July 1st. In the Arboretum MILKWEED flowered on July 3rd and BUTTERFLY WEED was out on the 8th. In Montville OLDFIELD TOADFLAX and ROUGH-FRUITED CINQUEFOIL flowered on July 1st.

After raising one successful brood at Mary Butler Drive, the ROBIN, BLUEBIRD and PHOEBE all have begun their second nesting of the season. A BLACK-BILLED CUCKOO was nesting there on June 21st but the eggs were all destroyed on July 6th. A WHIP-POORWILL has been heard several evenings and a RED-BREASTED NUTHATCH was present on June 24th. At Harkness Park, two SNOWY EGRETS have been in the inlet and a flock of 8 DOWITCHERS was present on July 4th. Strange discoveries included a female RED-BREASTED MERGANSER at Waterford Beach on June 16th, the WINTER WREN still present off Great Neck Road, 9 BRANT offshore along Shore Road on July 2nd and a pair of SUMMER TANAGERS at a feeder on Shore Road June 21st.

Groton and Mystic: Flowering dates at the Peace Sanctuary include PYROLA on June 24th, WHORLED LOOSESTRIFE June 17th, SPOTTED WINTERGREEN and St. JOHNSWORT on July 8th. BLUEBIRDS raised successful young in the fields to the north of the Peace Sanctuary. A GRASSHOPPER SPARROW is nesting in the field areas across from the runway at Trumbull Airport.

Stonington and the Rhode Island Shore: WOOD LILIES were in flower at Barn Island on July 4th. LEAST BITTERNS were seen there regularly at the first impoundment with a maximum of three seen on July 4th. One was seen at the second impoundment on July 10th. A VIRGINIA RAIL was present on the 4th. Two pairs of CANADA GEESE nested at Barn Island this summer and 12 young were seen on July 10th. Shorebird migrants were noted at Galilee, R. I. on July 7th and included DOWITCHERS, GREATER YELLOWLEGS, SEMIPALMATED and LEAST SAND-PIPERS.

Contributors to this column were: Mr. and Mrs. Kenneth Bates, Grace Bissell, Lawrence Brooks, Mrs. Philip Dewire, Robert Dewire, Warren Fish, John and Trudy Gardner, Helen Gilman, Jim and Robin Kearney, Walter Moran, Mrs. Enders Richards, Nelson White and Mary Jean Williams.

DID YOU KNOW

Land given to the Science Center not only provides for its protection as a Nature Preserve... but provides the donor many tax advantages.

ACTIVITIES FOR AUGUST

The Summer Nature Study Program for children of members of the Science Center continues during this month.

The Wednesday evening field trips will be continued through this month with four trips scheduled.

August 7--6:30 P. M. --Barn Island. With the shore-Ord migration underway and the northward flight of many of the herons, Barn Island should be quite productive. We will meet at the State Boat Landing at the Island.

August 14--6:30 P. M.--Harkness State Park. As with Barn Island there should be a lot of activity along the shore at Harkness. Beachcombing always results in some interesting finds. We will meet at the Harkness parking lot.

August 21 --6:30 P. M. --Peace Sanctuary. This trip into the woods will be an attempt to sight some of the early migrating songbirds. We will also be looking at some of our late summer wildflowers. Meet at the entrance to the Sanctuary on River Road.

August 28--6:30 P. M. --Harkness State Park. Besides the good birding and beachcombing here, the formal gardens will be at their best. Meet at the parking lot.

Gamma Society is sponsoring a trip to the American Shakespeare Festival for the performace "Love's Labor's Lost." For tickets and transportation call 442-5121... Profits will go toward the Science Center's New Building Fund.

THAMES SCIENCE CENTER

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Water-Lily At Arboretum Pond